

## Course Outcomes Assessment

**Course/Program Title: DHY 204 Pain Management in Dental Hygiene Practice**

**Date: 12/21/16**

**Course/Program Team: John Stull, DDS; Paul Kane, DDS; Jennifer Suminski, RDH, MS; Amie Carilli, RDH, BS**

### **Expected Learning Outcomes:**

- Prepare for the successful completion of the Commission on Dental Competency Assessments Examinations (CDCA) for certification in local anesthesia administration and nitrous oxide sedation monitoring.
- Assess patients' medical and pharmacologic histories to determine the suitability and proper selection of local anesthesia with or without vasoconstrictors.
- Describe and demonstrate the principles of local anesthetic administration and safety.

**Assessment:** (How do or will students demonstrate achievement of each outcome? Please attach a copy of your assessment electronically.)

1. Tests and lab competencies measure student performance for the expected learning outcomes.

3 Unit Exams (3 @ 100 points each)	300
Lecture Quizzes (4 @ 25 points each)	100
Homework (6 @ 10 points each)	60
Medical/Dental Emergency Case Scenarios (4 @ 10 points each)	40
Laboratory Skills Evaluations (3 totaling 56 points)	56
Clinical Competencies* (injections) (24 @ 12 points each)	288
Engagement	60
<u>Attendance</u>	<u>50</u>
Total	954

**Validation:** (What methods have you used or will you use to validate your assessment?)

1. Students must successfully demonstrate skills learned in this course and receive a grade of 75% (C) or higher to progress in the Dental Hygiene Program

**(85% (17/20) of students achieve an average of 75% or higher on all exams)**

**(90% (18/20) of students achieve an average of 85% or higher on the first two series of injection)**

**(90% (18/20) of students achieve an average of 95% or higher on the third series of injection)**

2. Commission on Dental Competency Assessments (CDCA) Local Anesthesia Exam results & Commission on Dental Competency Assessments (CDCA) Local Anesthesia Exam results

3. Students are required to administer 4 injections in Clinic III and 8 injections in Clinic IV. Evaluations of student performance on clinic patients further validates the course requirements and design of DHY 204.

DHY-202 Clinic III and DHY-221: Students will demonstrate clinical skills under the direct observation of a clinical dental hygienist or dentist as stated in the Course Requirements. Skill Evaluations will be based on procedures learned in DHY 102, 111 and 204 and practiced in DHY 202. Students will be evaluated using the Skill Evaluation forms.

For each Clinical Skills Evaluation: 1. Each line item must receive a mark of Satisfactory “S”; 2. When an Unsatisfactory mark “U” is earned it must be removed by repeating the entire clinical skills evaluation, in order to earn credit for the clinical skills evaluation; 3. All Clinical Skills Evaluations must be completed with all “U’s” removed by the deadline.

**Results:** (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?)

#### 1. Exam and Injections Skills Evaluation Results

Results (n=20)	Validation Outcomes	Class Average
Exam #1	19/20 scored <75%	86.92%
Exam #2	20/20 scored <75%	99.4%
Exam #3	19/20 scored <75%	86.6%
1 <sup>st</sup> series of 8 injections	20/20 scored <95%	99.22%
2 <sup>nd</sup> series of 8 injections	20/20 scored <95%	99.16%
3 <sup>rd</sup> series of 8 injections	20/20 scored <95%	100%

#### 2. CDCA Exam Results

Class of 2016 (n=17)	CDCA Local Anesthesia Exam	CDCA Nitrous Oxide Exam
Class of 2016 (n=17) Pass on 1 <sup>st</sup> attempt	17/17 (100%)	6/6 (100%)
Class of 2017** (n=20) Pass on 1 <sup>st</sup> attempt	1/1 (100%)	No Results Yes

\*\*Testing for these two exams is an optional part of licensure, Tests are usually taken between December and July for each cohort. Results will be included in graduate info Spring 2017.

3. DHY-202 Clinic III Fall 2016, 20/20 students successfully administered the required series of four injections with passing assessments.

**Follow-up:** (How have you used or how will you use the data to improve student learning?)

The weight of the points for exams and quizzes (~41%), compared to lab projects (40%), must be adjusted so that exams are weighted more heavily and final course grade inflation is reduced. Lab grading should continue in the same manner, due to the precise and intense nature of the clinical skills. Ideally, the same clinical faculty will continue to teach the course to continue current calibration and success.

The current didactic coursework is preparing students to be successful in clinical administration of local anesthesia as well as passing licensure examinations. The clinical skills evaluations are preparing students to administer anesthesia in Clinics III and IV, success of this is reflected in student skill evaluations when giving injections to patients in clinic.

**Budget Justification:** (What resources are necessary to improve student learning?)

No additional financial resources are needed at this time.